IMPLEMENTATION OF THE CLEAN WATER ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

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FRIDAY, FEBRUARY 5, 1982

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Good morning, everyone.

I apologize for the delay. The President had some of us down to the White House this morning in connection with the New Federalism program, and we had a fine meeting there. But, unfortunately, it delayed this gathering.

I want to welcome the Deputy Administrator, Dr. Hernandez. We are glad to see you once again.

The purpose of this hearing of the Subcommittee on Environmental Pollution is to conduct an oversight hearing on the implementation of the Clean Water Act.

As you recall, last year we did all our work in connection with the construction grants. Now we move into the other phase of it. We are, of course, pleased that our first witness will be Dr. John Hernandez, the Deputy Administrator, with whom we worked so hard last year and so effectively.

Again, Doctor, I want to thank you for your help in that construction grants program.

We are opening the dialog between the subcommittee and EPA in connection with the passage of this crucial legislation. As everybody involved with the clean water business knows, as a result of the dialog and the cooperative working relation that was developed with the Agency, significant amendments to the construction grants program, as I mentioned earlier, were accomplished.

While that program was in desperate need of reform, and I think we accomplished those reforms, the same cannot be said, in my judgment, for the other parts of the act. Based on my experience in talking and meeting with people from my own State, there is a broad base of support for the institutional approach to pollution control embodied in the act and also the timetables established for the continued cleanup of our Nation's waters.

I would say this is especially true in the area of controlling the discharge of toxic pollutants. For those reasons, the people who are seeking changes to the act carry with them the burden of proof, and not only the burden of proof, but I would say a heavy burden of proof.

The Clean Water Act does not lend itself easily to legislative tinkering. Changes have to be well thought out and thoroughly thought out before accepted. Rarely does a change in one portion of the act not affect some other section being changed in an often unanticipated way.

The last point I wish to make is to let everyone know that this subcommittee does not expect to be constantly amending the Clean Water Act. This year we have before us the reauthorization of several laws. The reauthorization of namely the Endangered Species Act, which we will be taking up shortly later this month, the Ocean Dumping Act and the Solid Waste Act. Each of these take time.

Beyond these issues, the full committee, of course, is continuing with the clean air deliberations which are very time consuming.

The notion that we will do one part of the Clean Water Act in the spring and another part in the summer is not appealing to me. Barring an emergency of some unexpected type, there will be only one bill amending the Clean Water Act reported out by this subcommittee. It will include all of the amendments we feel are warranted, whichever amendments we do feel are warranted.

If any task forces or Government councils are meeting with the expectation that their work will be reviewed at the end of the summer, that just will not be possible. We have a very short legislative schedule this session, and there just isn't as much time as a lot of people think.

Obviously, we are going to be out by October 1 of this year, or close to it. The earlier the better, as far as I am concerned. And so we have to clear the decks. Issues not addressed early in this session will be the business of the next Congress.

Senator Randolph, the distinguished ranking member of the committee, has a statement and I will submit that for the record.

[The statement follows:]

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator RANDOLPH. This morning, the Subcommittee on Environmental Pollution receives testimony from Dr. John Hernandez, Deputy Administrator of the Environmental Protection Agency. He will present the administration's view on issues on the implementation of the Clean Water Act.

We do not expect to hear specific recommendations for amendments from Dr. Hernandez today. It is my understanding that the administration will forward suggested legislation to the Congress sometime in March. This hearing will serve, therefore, to set the stage for considerations later in this session.

I am grateful to have been chairman of the Committee on Environment and Public Works at the time of passage of the Clean Water Act in 1972, and to have taken an active role in amendments to that act over the ensuing years. Just over 1 month ago the President signed into law legislation formulated by this committee which authorized reforms in the construction grant program mandated by title II. This year we will be addressing other parts of the act.

The Clean Water Act has been in effect for 10 years. The waters of this Nation are measurably cleaner in 1982 than in 1972. The act has worked, and I do not believe that it requires massive revision at this time. I regard the amendments which will be under serious consideration by our committee this year as more minor adjustment, rather than substantive structural change.

Last month I received a letter from the Administrator of the Environmental Protection Agency, Anne Gorsuch, enclosing a summary of possible legislative issues applying to the Clean Water Act. I expect that the proposed legislation which we will receive soon will address these same issues. Any legislative change in some of these areas go beyond what I think is appropriate at this time. The issues identified by EPA, together with a number of other areas, have also been highlighted by various interest groups in advance of these hearings.

I think it is useful to highlight the areas in clean water which will probably be addressed by this subcommittee this year.

The 1977 amendments to the act required industrial compliance with best available technology [BAT] guidelines by mid-1984 for the control of statutorily identified toxic pollutants and for most nonconventional pollutants. The guidelines were to be developed in accordance with technological and economic considerations. The quality of the receiving waters was not to be a factor. For a number of reasons to be discussed during these hearings, the Environmental Protection Agency has promulgated only one BAT guideline since the 1977 amendments. That is most unsatisfactory progress. The control of toxic pollutants should be the most urgent goal of the Environmental Protection Agency, as it is with this committee. These requirements are the centerpiece of the 1977 amendments. Now, because of this delay, it is unlikely that all affected industries can meet the statutory 1984 deadline. The subcommittee will look at this issue closely.

The subcommittee is committed to examining the section 301(h) program of waivers of the uniform secondary treatment requirement for deep ocean discharging municipalities. We will consider whether this program is properly limited and examine regulation of sludge disposal. We will look carefully at any administrative or legislative proposal to relax the secondary treatment standard including the unacceptable suggestion that inland municipalities discharging treated sewage into major rivers which dilute those discharges should be able to obtain a waiver.

The national pollutant discharge elimination system [NPDES] requires permits for individual point sources to limit the discharge of pollutants into navigable waters. Permits issued under this procedure are limited to 5 years. Nearly 40,000 such permits will have expired by the end of this year. Consideration will be given to legislative expansion of the permitting period, at the same time assuring sufficient monitoring of the permit holders during that extended period.

The act mandates that the Environmental Protection Agency establish pretreatment standards for designated categories of industrial wastes to be discharged into publicly owned treatment works. While 65 toxic pollutants and 21 priority industrial categories have been specified by the Agency, only one standard has been promul-

gated. Questions have been raised as to how the Agency is carrying out this requirement and the effectiveness of such standards.

Other clean water issues will be addressed in the course of Environmental Pollution Subcommittee deliberations this year. The views of Dr. Hernandez are timely as we begin hearings on the Clean Water Act.

Senator CHAFEE. I know if Senator Randolph is able to be here, he will be here.

OK, Doctor, why don't you go ahead. You are the only witness today, so we have got time, and you can read through your statement if you want, or do whatever you wish. We have enough time.

STATEMENT OF JOHN W. HERNANDEZ, JR., DEPUTY ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY BRUCE BARRETT, ACTING ASSISTANT ADMINISTRATOR FOR WATER; STEVEN SCHATZOW, DIRECTOR, OFFICE OF WATER REGULATIONS AND STANDARDS; AND PAUL CAHILL, OFFICE OF INTERAGENCY AFFAIRS

Dr. HERNANDEZ. Thank you, Mr. Chafee.

If I may, I have a few comments that are not in my prepared statement; first, it is always a pleasure to be in this room and before you. I certainly have the best of memories of our work on the Construction Grants Act. I think that many of your comments in dealing with the timeliness of bringing forth amendments by the administration are certainly right on target and things that we do share with you.

Also, a comment on the intricacies of the Clean Water Act and the problems of making minor amendments. I have likened the Clean Water Act to a waterbed. If you punch down on one place, it comes up someplace else. So we need to be very careful in how any kind of changes are made and hopefully we will be able to provide legislative language on those issues that we see forthcoming.

I will start into my text, then. It runs about 30 minutes. I will read quickly.

Good morning, Mr. Chairman. I am John W. Hernandez, Deputy Administrator of the U.S. Environmental Protection Agency. I am accompanied today by Bruce Barrett, Acting Assistant Administrator for Water and by Mr. Steve Schatzow, who is head of our Effluent Standards Group at EPA. We are glad to have the opportunity to discuss the Clean Water Act and its reauthorization.

The signing of the construction grants reform bill, Public Law 97-117, marked a rededication of Federal funding under title II more toward environmental goals, away from a more public works oriented program, away from treatment for treatment's sake and away from construction without regard for environmental results. You all played a critical role in the success of Public Law 97-117, and the administration fully appreciates both the efforts and the dedication of the committee.

Because we share the same commitment to improving water quality and to the overall objectives of Public Law 92-500, I would like to share my thoughts on the implementation of the Clean Water Act, and on some of the problems we have experienced over the decade since its passage in 1972.

EPA and the administration are fully committed to the act's fundamental objective: the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. The act is basically a sound statute. Most of the issues associated with the national clean water program have resulted because of the difficulties encountered in putting it into effect.

After reviewing the evolution of the Clean Water Act, its operation, and the progress that has been made, I will discuss some of the problems encountered in a decade of implementation, outline the administrative and regulatory initiatives underway to resolve them, as well as a review of possible areas of legislative discussion in title I, title III, and those parts of title IV relating to the municipal and industrial discharge permit system.

Cases of extreme water pollution problems in the 1960's were not uncommon. In one case, a river actually caught fire because of the high levels of oily wastes. In other cases, water bodies were contaminated with toxic chemicals that made consumption of fish from these waters unsafe. There were many municipal sources of raw or only partially treated sewage into major waterways, resulting in severe oxygen depletion, bacterial contamination which made waters unsafe for human contact or shellfish harvesting, and, in extreme conditions, severe health and odor problems. These not uncommon instances of pollution from our cities and our industries were often compounded by agricultural and urban runoff. Public health, resource use, and environmental concerns created national interest for legislation to control water pollution.

The first comprehensive Federal water quality legislation was the Water Pollution Control Act of 1948, Public Law 80-845. The next national effort was the Federal Water Pollution Control Act of 1956, Public Law 84-660; this law substantially increased the Federal role by providing for grants to assist States in preparing pollution control plans and to help municipalities in building wastewater treatment plants.

In 1965, the act was revised again to require the establishment of State water quality standards for all interstate navigable waters. Subject to Federal approval, these standards addressed the uses of the water to be protected and the kinds and amounts of pollutants permitted.

In 1970, the Water Quality Improvement Act, Public Law 91-224, added provisions addressing oil and hazardous substances discharges, acid mine drainage, and pollution from Federal facilities.

Over the more than two decades spanned by these statutes, water pollution control was premised on the principle that the States should take the lead in the prevention, control and abatement of water pollution.

Congressional hearings in 1970 and 1971, however, determined that after 5 years only 27 States had fully approved standards as required under the 1965 act. Many major waterways near industrial and urban areas in some States remained the site of uncontrolled waste and sewage discharges. Because of inadequate scientific data, and the lack of legislation which linked limits on effluent discharges to water use and water quality, some States were unable and unwilling to enforce their standards.

These shortcomings led to the enforcement of the Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500. This act established minimum technology-based standards for municipal and industrial treatment plants, set up a national permit program and required that toxic pollutants be identified and corresponding limitations developed. The act envisioned a major State role in its operation, while significantly increasing the Federal role. In this respect, the April 1976 State Report to the National Commission on Water Quality noted that:

> Many of these provisions delegate additional rule-making duties to the EPA Administrator (with) * * * section after section retaining final administrative discretion with the Federal Administrator in most instances.

In 1977, amendments to the Clean Water Act were passed which continued to provide for delegation to the States but emphasized control of toxic pollutants through both technology and water quality-based programs. EPA was assigned additional tasks in these amendments.

A State/Federal relationship in water pollution control has been established that requires the States to develop water quality management programs and EPA to establish a national permit program, water criteria, and technology based effluent guidelines. The State plans are founded on a system of water quality standards designed to protect designated stream uses, such as public water supply, recreation, or aquatic life.

Congress recognized that nonpoint source pollution is highly dependent on local conditions and that control should be the primary responsibility of State and local agencies.

To deal with point sources, the Clean Water Act provides for a system of permits which incorporate effluent limitations for both municipal and direct industrial dischargers. Dischargers are subject to both technology-based treatment requirements and, where necessary, to protect a designated use, water quality standards.

Technology-based, however, does not mean that the Agency prescribes the technology that must be used. Rather EPA reviews the various treatment techniques presently in use in each industrial sector to determine what limitations are achievable using available methods. Once EPA adopts effluent limitations for a particular industry, each company or plant is free to use any method it chooses to achieve these limitations.

The provisions of the 1972 act for the control of toxic pollutants proved to be cumbersome and time consuming. Because of the resulting delay in promulgating toxic pollutant limitations, EPA was sued by several citizen groups.

As a result of the suit, a consent decree was issued in June 1976 that required EPA to establish effluent limitations and pretreatment standards for 65 specified toxic compounds—subdivided later into 129 priority pollutants.

In the 1977 amendments, Congress codified many of the requirements of the 1976 consent decree and established new compliance deadlines. Best available technology, that is BAT standards, were required for both toxic and nonconventional pollutants. Congress also directed the Agency to develop best conventional technology,

that is BCT for conventional pollutants. BAT for toxic pollutants and BCT for conventional pollutants are to be achieved by all industrial direct dischargers by July 1, 1984. BAT for nonconventional pollutants is to be achieved no later than July 1, 1987.

Compliance with secondary treatment standards for publicly owned treatment works, POTW, was reaffirmed in the 1977 amendments. However, the compliance deadline for POTW's that had experienced funding difficulties or construction delays was extended from July 1, 1977, to no later than July 1, 1983. As you know, in last year's construction grant reforms, this deadline was extended again to July 1, 1988.

In the past decade, the application of technology-based controls on industrial discharges, coupled with the construction grants program for control of municipal sewage, has resulted in substantial reductions in the amounts of pollutants that otherwise would have entered the Nation's waters. Following are some examples of pollutant removals and stream improvement:

From 1972 to 1977, implementation of BPT regulations are estimated to have significantly reduced industrial discharges of six key pollutants: biochemical oxygen demand by 69 percent; suspended solids by 80 percent; oil and grease by 71 percent; dissolved solids by 52 percent; phosphate by 74 percent; and heavy metals by 75 percent.

By 1980, municipal sewage treatment plants were removing substantial amounts of conventional pollutants: approximately 13,600 tons per day of BOD, and 15,800 tons per day of suspended solids. This represents an increase of 65 percent in the removals over the 1973 levels and is due in part to a significant increase in the number of POTW's achieving secondary treatment levels, from 40 percent in 1975 to over 75 percent in 1980.

There are numerous examples of improved water quality. For example:

The return of several desirable fish species in the Potomac River and marked reductions in phosphorus and BOD are clear indicators of recovering streams.

Improvements in the Naugatuck River and Lower Housatonic River in Connecticut have resulted in upgrading of some sections to fishable/swimmable status.

Beaver Creek in Knoxville, Tenn., has been restored for swimming, fishing, and wading, and is now a safe and reliable water supply.

Problems associated with industrial effluent guidelines:

By the time the 1977 amendments were enacted, it was clear that the first phase of secondary and best practicable treatment requirements, BPT requirements, were resulting in greater reductions in conventional pollutants than had been expected. This interim set of standards were met by approximately 81 percent of the affected industries by the July 1, 1977, deadline, and by a full 94 percent of industries have now met the appropriate requirements. This represents a tremendous accomplishment by the states and industry and shows them to be willing partners in improving the Nation's waters.

This program has not been without cost. Under P.L. 92-500, the local and State Government investment is estimated at $11 billion,

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the Federal grants for water pollution control at $33 billion, and industry itself may ultimately spend as much as $18 billion. And industry will be required to spend more money as they move to meet BAT requirements.

For various reasons, the promulgation schedules for the BAT guidelines have slipped, and there is little possibility that EPA will be able to publish the last of these industrial effluent guidelines in time for dischargers to meet the July 1, 1984, compliance date. These delays developed because little was known about analytical methods for measuring the toxic materials or the performance of wastewater treatment technology in removing these materials. Because of the lack of water quality information for toxic materials, development of an extremely large data collection and analysis program was necessary.

EPA laboratories and consultants had to develop analytical methods for the detection and measurement of the toxic pollutants, as well as information on the treatability of toxics. Detection of many of the priority pollutants at the concentrations found in wastewaters and in receiving waters remains a very difficult task.

I can now report, however, that we have virtually completed the data collection and analysis efforts essential to developing effluent guidelines.

I am also pleased to report that, contrary to the Agency's inital concerns, we have found that well-operated biological treatment systems can effectively control many of the toxic materials of concern.

For example, our technical analyses of the petroleum refining industry show that the traditional biological treatment methods required by the BPT regulations for conventional pollutant removal can also reduce organic toxics such as toluene and phenols by 95 percent. Similarly, our analyses also show that the physical/chemical treatment utilized by the ore mining industry reduces metals loadings by greater than 95 percent.

Because BPT effluent guidelines for controlling conventional pollutants provide treatment that is also effective in controlling toxic organics and heavy metals, further control measures may be unnecessary for certain industrial discharges.

The Agency faces difficult questions about how much additional pollutant control is necessary and at what cost. While we want to assure BAT is a cost-effective means of removing toxic pollutants from industrial wastewaters, we want to avoid treatment for treatment's sake.

Not all of the priority pollutants present health and environmental risks at the levels that they are found in our Nation's surface water systems. Moreover, since 1977, we have found that the amount of priority pollutants found in untreated wastewater is less than originally feared.

There are BAT/BCT-related concerns that cannot be addressed through regulatory or administrative measures. The first is that the delays we have experienced in promulgating BAT/BCT guidelines will make it impossible for industry to meet compliance deadlines. It may be appropriate to consider modifying these deadlines.

Congress provided for environmental waivers for nonconventional pollutants in section 301(g) and for POTW's discharging into

marine waters under section 301(h). No such waiver capability now exists for other pollutants. Through the 301(h) process, EPA has gained a great deal of experience in doing case-by-case analysis of the environmental impacts of discharging wastes into the oceans.

The Agency is now reviewing the advisability of recommending adoption of an environmental waiver process from certain BAT requirements, and I will report our recommendations to you in the coming weeks as we consider some of the possible alternatives.

There are other alternatives available such as reorienting standards to better emphasize water quality conditions; these should be and will be explored. What we should not do is require the blanket unreviewed expenditure of public or private funds where there are no health or environmental concerns nor any societal benefits.

Pretreatment: The Clean Water Act requires EPA to establish pretreatment effluent standards for indirect industrial dischargers to keep their waste flows from interfering with the operation of publicly owned treatment works, to prevent the pass through of inadequately treated wastes to receiving waters, and to avoid the contamination of municipal sludges by toxic materials that concentrate in settleable solids. The potential impact of industrial waste discharges varies greatly depending on the size of the municipality, its wastewater volumes, its monitoring and engineering resources and the nature of the receiving waters.

The Act also requires the development of State and local programs to implement and enforce these standards.

Under the Clean Water Act, EPA has adopted two kinds of pretreatment standards: general and categorical. The general pretreatment regulations were promulgated June 28, 1978, and established the administrative and procedural framework for the national pretreatment programs.

A set of amendments to the general standards has just recently gone into effect. The act requires that EPA designate the category or categories of sources to which pretreatment standards apply. Under the Consent Decree, EPA is required to establish this type of regulation for a number of industrial groups for which it set BAT guidelines.

The electroplating pretreatment standard was promulgated in September 1979, amended in January 1981, and is currently in force for certain subcategories. The timber products BAT-level pretreatment standard was promulgated in January 1981, and 11 other standards are currently proposed. These include textiles, steam electric powerplants, pulp and paper, porcelain and enameling, petroleum refining, paint and ink, leather tanning, iron and steel, coal mining, and inorganic chemicals. In addition, eight BPT-level pretreatment standards have been promulgated.

While there is a clear need for preliminary pretreatment practices at the local level, categorical standards for all industrial groups may not be needed, and the resources and time spent in developing the full set may be unnecessary. In addition, the promulgation of categorical standards as regulations may be too complex, rigid, and inflexible in that they do not permit an adequate consideration of local receiving water quality. The use of permissive guidelines and the reliance on some case-by-case decisions would

provide EPA and the States needed flexibility in implementing this section of the act.

It is now clear that municipal secondary treatment removes greater amounts of heavy metals and toxic organics than earlier anticipated and this reduced passthrough may reduce the need for pretreatment. Because most of these metals are transferred to municipal sludge, this may complicate municipal sludge disposal and reuse programs in some cases. General guidance that relates to the safe use and disposal of sewage sludge could help resolve this problem.

To deal with these concerns, the Agency recently issued a draft regulatory impact analysis on the pretreatment program, focusing on the impacts of toxic pollutants discharged by industries to POTW's. Depending on the outcome of the analysis, the Agency will undertake necessary administrative and regulatory changes, and may recommend statutory amendments in order to obtain needed flexibility in the statute.

Wastewater treatment produces sludge and concentrates pollutants as it removes them from the waste stream. As I have just indicated, sludge may contain heavy metals and organics that might otherwise be removed by pretreatment. Sludge may also contain organics, as well as the phosphorous and nitrogen from domestic sewage, which can often be productively reused as a supplement for soil fertilizers.

Although the Clean Water Act encourages the reuse of sludge, the processes involved raise many issues of a political, institutional, technical, and potential health-effects nature.

In section 405 of the act, Congress foresaw the need for guidelines on sludge reuse and disposal. While EPA has issued a number of regulations to deal with sludge disposal, comprehensive section 405 regulations have not yet been developed. This has limited the options open to municipalities, and a sludge management policy is badly needed.

The Administrator has established an intra-agency policy committee to oversee preparation of the section 405 sludge disposal and reuse guidelines. The product of this committee's work should help end the current uncertainty facing municipal sludge managers.

State water quality standards have two components: designated stream uses and water quality criteria to protect those uses.

Criteria define the appropriate physical, chemical, and microbiological parameters and levels of those parameters. Although EPA develops these water quality criteria for State consideration, the States have the primary responsibility for developing both use designations and the incorporation of criteria to protect those uses, subject to EPA's review and approval. Under certain conditions where State standards are insufficient, EPA has the authority to promulgate these standards in lieu of the States.

All 56 States and jurisdictions presently have approved standards, and the type of pollutants covered in State standards tend to be conventional rather than toxic pollutants. This will change in the future now that EPA has developed toxic pollutant criteria and the States are now progressing in the adoption of toxic pollutant standards.

The standards program has not been without drawbacks. The States have designated most stream segments fishable/swimmable, even in those highly questionable cases. Some drainage ditches, for example, were designated fishable/swimmable. EPA had aggravated the problem by initially mandating the adoption of EPA lab-derived water quality criteria unless the State could defend, indepth, the adoption of alternative criteria. The burden of proof requirements were overwhelming, and States tended to adopt EPA criteria or avoided numerical criteria altogether.

EPA's water quality criteria were developed for national use and admittedly may not be appropriate for local uses.

EPA is in the process of developing major reforms to the water quality standards regulations and guidance which will be made available to the States in the near future. EPA will no longer require that the States directly apply lab-derived criteria. We will instead stress studies of designated uses and the development of site-specific criteria. States will be urged to review their streams from environmental, technical and economic standpoints to determine whether designated uses are attainable and desirable. Modifications of past unrealistic designations and criteria will be encouraged.

For example, the Agency recognizes the value of seasonal standards which would provide for higher levels of pollution control to protect aquatic life during spawning seasons. EPA criteria are lab-derived and cannot possibly reflect stream-specific physical data, such as hardness, pH, and the resident species encountered.

We are now working with 10 States in field testing criteria modification protocols. These efforts are aimed at a workable standards program which fully reflects the act's intent.

The Agency has asked the Science Advisory Board to review the scientific and technical validity of this process. Permits and Enforcement Under the Clean Water Act:

The Clean Water Act requires the issuance of permits, known as NPDES permits—national permit discharge elimination system—for all direct point source discharges. NPDES permits include limits that are usually based on nationally applicable technology-based standards where such standards have been developed. The act provides for permit issuance by the Federal EPA or State authorities. EPA may approve a state permit issuance program when an adequate program is developed.

A very significant aspect of the Clean Water Act are the provisions for enforcement against dischargers who fail to comply with permit conditions.

Sections 308 and 309 of the act give EPA and approved states the authority to conduct inspections to gauge compliance with the permits and to enforce against persons who violate permit requirements. Enforcement mechanisms include, among other things, the issuance of penalties, injunctions, or criminal sanctions.

The basic permit process for EPA and the States is straightforward. A discharger submits an application; the permitting authority reviews the application; the public and the discharger may review the draft permit; and the permitting authority prepares and issues a final permit.

Prior to fiscal year 1981, EPA's activities focused primarily on industrial compliance and enforcement, and led to a 90 percent industrial compliance rate. Beginning in fiscal year 1981, increased emphasis has also been placed on municipal compliance and enforcement, especially for POTW's that have received Federal funding.

This new attention has resulted in a 76-percent compliance rate. To focus our resources on the more serious violators, we are also developing a definition of "significant noncompliance." This shift of emphasis to serious violators should lead to a marked improvement in the municipal compliance rate. Where a State has an approved program, the State is also the primary enforcer, although EPA can still provide technical support, assist with compliance inspections, and participate in enforcement action.

Since 1972, EPA and approved States have issued approximately 65,000 NPDES permits to municipal and industrial dischargers. This represents a significant first step in identifying and controlling sources of water pollution under the act.

Many of the initial, or first round, 5-year permits have now expired. While most of the major municipal permits have been reissued, there is a large and growing backlog of roughly 3,800 major industrial permits that must be reissued.

The most pressing implementation problems related to permits are the need to reissue large numbers of second round permits, the lack of nationally promulgated BPT/BAT/BCT effluent guidelines which necessitates case-by-case permit review, and the permit term itself. With respect to NPDES delegation to the 56 States and territories, 33 have approved programs, and we are actively seeking ways to increase this number.

We have several initiatives underway which we believe will alleviate some of our permitting problems. I would like to note our development of BAT guidelines for certain industries will lag far behind the timing of second round permit issuance. This will result in problems as permit writers must base their revisions on what they consider to be best engineering judgment.

We are looking at ways to modify the basis for State NPDES program approval and to allow partial State program approval, but this partial program approval may require some statutory changes. We are also conducting a major effort to revise, streamline, and improve the consolidated permit regulations, which stipulate the NPDES permit requirements. Finally, we are evaluating the current 5-year permit term to see if a longer permit life would be more effective.

Dredge and fill: The permit program under section 404 of the act is intended to protect the physical, chemical, and biological integrity of navigable waters of the United States from unacceptable adverse effects of specific discharges of dredged or fill material.

The act authorizes the U.S. Army Corps of Engineers—the corps—to issue permits for discharges of dredged or fill material into waters of the United States. The corps' regulations implementing section 404 define waters of the United States to include wetlands which are adjacent to navigable waters of the United States and wetlands, the degradation or destruction of which would affect interstate commerce.

The act allows States to assume responsibility for permitting in the nonnavigable waters although no State has yet done so. Although the corps issues the permits, the act authorizes EPA to establish environmental guidelines for the corps to use when it evaluates the effect of those discharges. EPA also manages the transfer of the permitting program to the States. EPA may veto a permit on certain environmental grounds, and the Administrator is authorized to commence a civil or criminal action for violations of section 301 of the act, obtain civil or criminal penalties, and obtain injunctive relief.

Violations of conditions in permits issued by the Secretary of the Army under section 404 are subject to criminal sanctions and civil remedies.

Frequently raised problems with the program are the great number of activities which must obtain a permit, the difficult standards and conditions often imposed in the permitting process, obstacles to State program transfer, and the expansive geographic scope current definitions give to waters of the United States.

The time from receipt of a complete permit application until a final decision can be quite long. This may be due in part to agencies not always adhering to time limits for permit processing.

Overlapping responsibilities between EPA, Interior, Commerce, and the corps confuse the regulated public and can result in much delay and duplication of effort. The degree of detail of information required of an applicant at the permit stage is also a source of confusion. State is reluctant to take on the program because of the stringent criteria required for program approval and the need for partial delegation to the many types of State organizations that may be involved.

The 404 program is currently under review by an Administration regulatory reform task force under the leadership of the Army. This group will assess the problems and provide recommendations at a later date. At that time, I will be happy to provide a more concrete Agency position, but to do so now would be somewhat premature.

Although Federal involvement has increased with each subsequent national water pollution control statute, the States have been assigned the lead role. The States must adopt water quality standards, develop a water quality monitoring program, prepare water quality management plans, and where their programs meet minimum quality management plans, and where their programs meet minimum national standards, issue and enforce discharge and dredge and fill permits. The Clean Water Act also authorized EPA to act if a State cannot or will not act, and to overrule a State action when it is inconsistent with the statute.

Some States have expressed concern about EPA's excessive oversight following approval of a State program. EPA has often reviewed individual State actions, such as on permits, with the possibility of vetoing such actions. We are working to switch the focus of EPA's oversight activities to overall program results, rather than to individual State actions.

The Agency has reviewed its public participation regulations and found them to be unnecessarily detailed and inflexible. By eliminating detailed procedural requirements, EPC can help State and

local officials tailor public participation activities to local conditions and problems.

To coordinate the Federal and State roles in achieving effective water pollution control and thereby cleaner water adequate planning and program management is essential. As we have discussed, States may establish designated uses for particular water bodies and then develop water quality based standards to achieve those uses. Where national technology based standards require more stringent control, they apply; but where they are inadequate to achieve a specific State-designated use States must then formulate additional controls. This entire process involves allocating financial, institutional, and regulatory responsibility at both the State and Federal level.

The Federal role in planning and program management has historically varied. At one time EPA closely reviewed the decisions of the States and areawide planning agencies, but that time has passed now that initial planning under section 208 has been completed. In their water quality planning EPA will encourage the States and local governments to chart the the direction of their programs with a clear focus on protecting State-designated uses on priority water bodies and to initiate actions to put their plans into effect.

EPA encourages States to organize their water quality management programs to provide current and accurate assessments of degraded water quality, poor compliance or lagging progress. States should also establish priorities as the basis for action, decide upon appropriate control measures and arrange the financing and agreements necessary. This process has been aided in the past through planning under the 1965 act and sections 303(e) and 208 of the current act. Because of these diverse planning requirements and programs, we are looking at ways to consolidate the various planning requirements to eliminate some of the confusion over the respective responsibilities of EPA, State, and local governments. As part of our examination of these planning responsibilities, we will preserve the principle that those agencies that bear the responsibilities and cost of implementation should be meaningfully involved in the preparation of water quality plans.

Plans for the control of nonpoint sources of pollution are often vague. Implementation costs and responsibilities are often unaddressed, partly because of the problems in defining the exact nature of the problem nonpoint sources present and the fact that the technologies for their control are only beginning to be understood. It should be noted that in many stream systems uncontrolled nonpoint sources are the principal generators of some pollutants.

Working with 28 State and areawide planning agencies, EPA is coordinating the nationwide urban runoff program and will be preparing a report detailing the causes and consequences of pollution from urban runoff as well as control program effectiveness.

Federal support to State water quality management programs is provided primarily through grants under the broad aegis of section 106 of the Clean Water Act. In the future, grants under section 205(j) will reinforce certain elements of these State programs. Grants are made to those States that have received delegation of

responsibility for the municipal construction grants program under section 205(g) of the act.

The funding was designed to ensure that the huge Federal investment in pollution control is well managed and that the future requirements to be imposed on industry are reasonable and that permit requirements are enforced. The capabilities of State governments have allowed the withdrawal of EPA as an active participant in many projects and have allowed us to focus on the more appropriate role of program management.

Finally, Mr. Chairman, outside of the direct statutory problem areas which we have reviewed, there have been a number of issues raised about title I and the goals and objectives of the Clean Water Act. Although title I establishes two main goals and 11 related policies to restore and maintain the quality of the Nation's waters, most of the controversy centers around the two goals. In a letter to Congress in January, the Administrator outlined these issues and some of the questions they raised. The first national goal, that of "zero discharge," is to eliminate all release of pollutants into navigable waters by 1985. The second goal sets an interim national objective of achieving, whenever attainable, "fishable/swimmable" water quality by July 1, 1983.

Both provisions have led to questions. Should either or both dates be changed? Should either or both goals be modified to reflect current economic and technological limits? Have advances in measurement technology modified the original meaning of "zero discharge?"

Is a "zero discharge" goal always the wisest environmental course, since "zero discharge" into water means that the pollutants must be discharged into other media or disposed of by other means, such as incineration, ocean dumping, or land filling? How should the conflicting priorities of clean air, clean land, and clean water be reconciled in such cases?

In enacting title I, Congress outlined its concerns about the need for clear national objectives, and we appreciate that direction, and the spirit behind title I. Just as our progress toward the goals of the Clean Water Act should be monitored periodically, the goals themselves and their interpretation should also be reexamined in the light of changing data and improved scientific information. Despite these questions and those which others have raised, as I indicated earlier, we remain committed to the overall objectives of continued progress toward cleaner water and improved environmental quality.

In view of the complexity of the act, and the history of its implementation, even lengthy testimony will not cover all the issues. In addition, as we prepare our legislative recommendations, other issues, some of them, technical in nature, may well come to light.

The administration review of our proposals may also generate further issues for discussion and for possible legislative consideration, but rather than attempt to deal with all possibilities here, as they are developed we will be investigating and reviewing them and will include those which the administration feels are necessary components of a balanced approach in our later recommendations to the committee.

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In conclusion, we believe the Clean Water Act can and will remain the principal effective means for achieving clean water across the Nation. Cleaning up our streams and rivers, our ponds and lakes, our harbors and estuaries, is indeed, a sound, necessary and practical national objective. At the same time, EPA believes that we can accomplish these goals more efficiently and effectively through the administrative and regulatory mechanisms available under the Clean Water Act. Greater flexibility in implementing the act will add significantly to our effectiveness.

The Administrator plans to recommend a few changes in the act in keeping with our continuing commitment to water quality and environmental improvement. We hope to provide the Congress with these amendments in March.

This concludes my prepared statement, Mr. Chairman. We appreciate this opportunity to discuss the Clean Water Act with you and will be happy to answer any questions that you may have.

Senator CHAFEE. Thank you very much. Dr. Hernandez. I appreciate that statement. As you indicated, you will be coming forward with some amendments in March. I wouldn't let that slip because I think we are going to get into this in April probably.

I noted that you included a statement that I don't think is necessary, although I am always glad to hear, but in considering the agency you work for, I would think that truly you would remain committed to the overall objectives of continued progress toward cleaner water and improved environmental quality.

I expect that goes without saying. It is nice to hear you say it, but if you said anything different, I would be in shock.

Dr. HERNANDEZ. Mr. Chairman, I am the Deputy Administrator of the Environmental Protection Agency and we take that challenge very seriously, sir.

Senator CHAFEE. That is right. I hope everybody always remembers that the name of the agency is the Environmental Protection Agency. You are a partisan in the battle to keep the environment protected.

You got into the 1976 consent decree. Could you, or one of your assistants, perhaps go into that in a little more detail. Where do things stand now? In other words, as I recall that decree, there were guidelines required. It would be helpful to me if we had a little more discussion of what is happening under that 1976 decree.

Dr. HERNANDEZ. Thank you, Senator Chafee.

Senator CHAFEE. If you want to turn it over to somebody else, feel free to.

Dr. HERNANDEZ. I will do that with pleasure because not being a lawyer, I tend to underestimate the importance of some of the details that people tell me about. It has been a tremendous burden on the agency because of the various requirements in the consent decree. I think we are working hard to achieve some of those. Some of them are not encompassed in the law today. That is the 1977 changes. There are additional things.

I would like to ask Mr. Steve Schatzow to tell you about the decree itself and some modifications that we have sought early in June or July of this year and then subsequent requests that we made to the courts. I will ask Mr. Schatzow to discuss those issues.

Mr. SCHATZOW. The decree has, I think—trying to summarize it—four major components. The major component, by far the major component of the decree and the one that was subsequently enacted by the Congress in 1977 was the requirement for developing technology-based guidelines for existing and new sources of water pollution covering 21 industries and covering 65 families of pollutants.

The consent decree specifies that such guidelines would be developed and set forth timetables for the development of those guidelines.

The second part of the consent decree required the development by the agency of pretreatment standards for pollutants other than the 65 specified by the agency to investigate the possibility of developing pretreatment standards. That is what we refer to as paragraph 4C of the consent decree.

The third part is paragraph 11 which requires the Agency to develop more quality criteria for the 65 pollutants. And part four was the provision, paragraph 12, which required the agency to investigate to determine whether controls more stringent than the technology standards might be required to protect quality and develop strategies for dealing with those problem areas.

As Dr. Hernandez mentioned, in June, we went back to the court with a request to modify the consent decree in two respects. The first respect was in terms of the effluent guidelines requirements, the ones that have become part of the statute, and we asked the court to give us additional time to get out those guidelines, not in any way changing our commitment or legal obligations to get out the guidelines but asking the court for additional time because of a variety of technical, scientific and varietal problems we ran into, some of which Dr. Hernandez discussed in his testimony.

At the same time, we asked the court to delete the explicit requirements of paragraph 4C, paragraph 11 and paragraph 12 for two reasons. No. 1, those specific requirements are not explicitly required by the statute and the agency felt and continues to feel that in specifying, as specifically as those paragraphs do, the exact processes that the agency must follow with exact timetables that it puts the agency in an incredible straitjacket in terms of its ability to operate the program.

That is where we stand. The industrial intervenors in the case have moved to vacate the entire decree. The matter is now awaiting the court's decision.

Senator CHAFEE. The mere fact it is a consent decree means EPA consented to it, you entered into it, right?

Mr. SCHATZOW. We entered into it at one time, back in 1976.

Senator CHAFEE. You agreed to the decree.

Mr. SCHATZOW. At that time. I think it is clear at the time we entered into the decree, we had relatively little understanding of the possibilities of complying with the decree and certainly of complying with the decree by the date specified in the decree.

Senator CHAFEE. That is an odd statement. You didn't know what you were getting into, in other words?

Mr. SCHATZOW. We thought we knew what we were getting into from a conceptual point of view, but as Dr. Hernandez, for instance, mentioned in his testimony, from a pragmatic point of view

in terms of our ability to analyze these pollutants to develop within a rapid time period the regulatory controls, I think the Agency was substantially overoptimistic at that time.

Senator CHAFEE. I have never thoroughly understood the word "conceptual." We used to hear that a lot in the Navy all the time. But never mind. Let's not beat that to death.

Mr. SCHATZOW. What I am suggesting, Senator, is the notion that one could investigate these pollutants on an industry-by-industry basis, make a determination of what kinds of problems they caused and what kinds of technologies would be appropriate for controlling them, and then develop regulations to control them; that is what I call a conceptual basis of the major element of the decree, something we believed in conceptually then and I think the Agency believes in conceptually now and is doing it.

Senator CHAFEE. What is the status of the guidelines which were required? Where are we now?

Mr. SCHATZOW. We have, I believe, 11 guidelines that have been proposed. We have a schedule that we have submitted to the court. We have asked for the schedule to be modified. We have other guidelines right now that are in the final phases of Agency review, a number that I believe will be——

Senator CHAFEE. You had to come up with how many total; 65?

Mr. SCHATZOW. No, in terms of the industries, we were talking about 21 different industrial categories.

Senator CHAFEE. And you have done 11?

Mr. SCHATZOW. And we have proposed 11.

Senator CHAFEE. You proposed 11. What makes a guideline final?

Mr. SCHATZOW. It becomes final after we complete a rulemaking process. In other words, put a proposal out in the Federal Register, we solicit public comment, we get a lot of public comment, we evaluate the public comment and then make a decision, should we go based on the public comment, what kind of modifications we should have to the proposal and then put out a final guideline.

Senator CHAFEE. But you haven't reached a final on any so far?

Mr. SCHATZOW. The one guideline that has been promulgated final is timber guidelines which were promulgated in January 1981. We have two more that I think safe to say are right around the corner which is the guidelines for the iron and steel industry and inorganic chemicals industry. I expect those to be promulgated within a very short time period.

Senator CHAFEE. It is my understanding you informed the court you have the resources to meet the deadlines?

Mr. SCHATZOW. That is correct.

Senator CHAFEE. Is that reflected in the 1983 budget?

Mr. SCHATZOW. I believe it is. Again, as Dr. Hernandez suggested, most of the data gathering work a. l the analysis and the technical information and the economic information has been gathered for most of these industries so that the exact that we are showing, for instance, some reductions in the budget, particularly in terms of external contracting resources, which is how we gather much of the initial information, I think is consistent with where we are in the process.

We are now in what is for the most part an internal process of analyzing public comments, developing strategies, and coming up with the final rules.

Senator CHAFEE. As part of that decree, didn't you have to identify certain toxic hotspots throughout the Nation?

Mr. SCHATZOW. I mentioned paragraph 12, one part of paragraph 12 was a requirement for the Agency to identify areas in the country where there might be a need for controls beyond the BAT controls in order to protect water quality and public health.

Senator CHAFEE. And where do we stand with that?

Mr. SCHATZOW. The Agency released in July a very preliminary evaluation—I want to emphasize how preliminary it was—of a series of areas of the country where on the basis of some modeling activities, on the basis of making some assumptions about what was being discharged and what would be discharged after BAT, where there might be water quality problems after the implementation of BAT.

Now, what has happened in those areas for the most part is that there has been a lot of followup by our EPA regions and by the States in investigating those areas and seeing to what extent even at the present time before the installation of BAT controls. There really are water quality problems there. A number of them we are looking at, for instance, do not appear to be water quality problems.

Senator CHAFEE. Dr. Hernandez, in your statement, I got the impression that you feel we might be going too far in controlling toxic pollutants as far as when you were discussing the industrial standards. Is that a fair statement and, if it is, how do you propose to control the toxics?

Dr. HERNANDEZ. I think the basic notion of technology-based standards has proven to be a useful approach and probably the only one that has enforceability and some kind of date certain when people will, industry will meet these guidelines. So the basic process is fundamentally a good idea.

I don't think that any of us would want to necessarily leave the BPT approach that we have—that is, having the best practical technology in place—as a basic floor.

I think our concerns come about in terms of requiring treatment for treatment's sake where there are no environmental gains by providing additional treatment for a particular plant. As you remember, these things are done by industries or subcategories within an industry and they reflect what is required for all industry in that group without taking into account where that particular industry discharges, whether they discharge into ocean waters or into a large stream.

So these requirements are set without any kind of review on a specific one, whether it cost them far more money or whether or not there is any environmental gains from providing that additional treatment, going from BPT to BAT. I think the BPT everybody says, "Gosh, that's the floor, we ought to have that." But going to the next level of treatment, in some cases we just don't gain anything because all industries are not necessarily quite alike in their waste streams and, second, they discharge into different kinds of

waters and the cost on any one industry may be significantly greater than the rest.

We feel perhaps we want to think about some kind of a case-by-case review on those places where it is clear that we are meeting stream standards and there is no environmental impact of that particular discharger.

Senator CHAFEE. Am I correct in assuming from your statement, and your answer to this question, that you are placing greater and greater emphasis on the local stream quality, and wasn't that the problem prior to the 1972 act?

Dr. HERNANDEZ. I think the problem we faced in the 1960's, as we tried to begin to control municipal discharges and industrial discharges, was trying to decide what level each of these should perform at. The burden was on the State to take each one of them and prove that they were polluting. This became an impossible barrier to accomplishing anything. You had to generate such quantities of information in order for the State to prove their case because in some of our more complex stream systems, there were many dischargers. The use of the technology-based approach is that everybody would provide this minimal level and then certain kinds of industry will require additional treatment, called BAT component.

I think all that we are saying is we know enough today to make some case-by-case decisions on these places where we are meeting stream standards, where the receiving water is not now being injured by an industrial discharger. It doesn't help anything for them to go on and spend this incremental money required.

Senator CHAFEE. In other words, you are suggesting what I view as a very radical departure in the approach to this act by getting into the discussion of the stream quality.

Dr. HERNANDEZ. No, sir, I don't think so. I think as I pointed out in my testimony, that type of procedure already exists in the act in the 301(h) for municipalities where we take into consideration the quality of the receiving ocean waters and we have done studies there and have a pretty good idea how much these things cost, how long it takes for us to review them, what kind of process we might use and some criteria for doing that. I think that also exists for the so-called nonconventional pollutants, that in phosphorous, nitrogen, ammonia, in another section of 301.

I believe this is not a radical departure at all but another one that says let's rationally look at what we are asking ourselves, because that is who does it, ourselves to finance in terms of providing additional treatment.

If somebody can prove—and the burden would be on the discharger, not on the State, the burden would be on the discharger—if you can prove that you are not causing any harm to the receiving water and some other criteria which we haven't thought out that closely—this is very much in the discussion stage so it is appropriate we do talk about these things together, say, why should we go on and do that, spend this additional money if these other factors can be shown.

Senator CHAFEE. How about the next fellow who comes along and sets up a new plant?

Dr. HERNANDEZ. I think that is an excellent point.

Senator CHAFEE. Not an entirely original point. I am glad to claim credit.

Dr. HERNANDEZ. I had it in my mind to mention new source performance standards. I believe new source performance standards should reflect whatever BAT is for that industry because they are starting in from scratch, they are designing a plant, why not design it to meet the full BAT. If you had somebody on a river system someplace, they would have to go to BAT in this particular system and they would flee to some other spot where they wouldn't have to go to BAT, that is not logical. We are going to do the kinds of movement of factors, not provide some kind of incentive to do that sort of thing.

I think the new performance standards would have to be based on BAT if we went to some kind of case-by-case waiver approach.

Mr. BARRETT. The waiver, I might add, might not necessarily be permanent. If another discharger came in and created a water quality problem, the discharger would have to go ahead and install——

Senator CHAFEE. Isn't that the problem that drives these people crazy, meeting a moving target? In other words, they go to BPT, for example, and then it has to be upped to BAT because somebody else has come on the stream, moved in discharging into the stream who has to meet the BAT.

Dr. HERNANDEZ. I think there are a lot of problems with this idea. I think many of them can be worked out through careful detailing and considering what the impacts are. Any kind of system like this will have administrative problems. We have taken a look at ideas on how many we might be able to handle and what kind of process, that sort of thing.

Senator CHAFEE. You are going to have some problems if your resources and your budget are constantly being diminished.

Dr. HERNANDEZ. One of the things in my discussions with many of the environmental groups that I have talked to about ideas like this, and let me say, Senator, when we started discussing a waiver system sometime earlier this year and I have met with many, many people, through those discussions begin to feel a little bit better about this process myself. One of the things that people have suggested, and I think is a good idea, is that not only does the burden of proof rest on the person requesting the waiver, but the funding for State permit consideration should also rest on them. So we don't put an unreasonable additional burden on State and the Federal Government.

Senator CHAFEE. What about the permits for discharge in the oceans, 301(h)?

Dr. HERNANDEZ. Yes, sir.

Senator CHAFEE. How many of those do you give out?

Dr. HERNANDEZ. It is either 11 or 13. That process took a long time to get going. We first had to do studies of each of about—I think we have done 70 now and invested something on the order between $100 and $200,000 in our part——

Senator CHAFEE. You mean of your people?

Dr. HERNANDEZ. That is right, and some contractor money on our part. That was after the municipalities did some studies. We have some pretty good idea what it costs us to review these things.

We spent a great deal of time on the first 10 or so as part of that learning process. I know I read the first group over myself and the details are amazing that we have gone through in terms of analyzing the biological life.

Senator CHAFEE. In other words, it takes an awful lot of your time, it is expensive for EPA to do it?

Dr. HERNANDEZ. No doubt about it. But I think we have a handle on that sort of process. Once we have gotten over these, I think the next will go much more quickly and at less expense. Certainly the people looking for this sort of variance should pay for that cost.

Senator CHAFEE. Aren't you required to transmit a water quality inventory up here every 2 years?

Dr. HERNANDEZ. I have a list of all of the deadlines we have met, Senator Chafee, on various reports. If I can find it, we might submit it for the record because it is not just that particular one.

Senator CHAFEE. That is the one I am interested in because you quoted about the water quality in your testimony. I would be curious. You can let us know later, but I am interested in that water quality inventory to see how you are doing.

Dr. HERNANDEZ. It is the 305B report. We don't have a copy. We have a reference on the date, though.

Senator CHAFEE. We will be in touch with you on that because I am interested in it.

You dealt in your statement with the Federal interest in pretreatment. What happens when the discharger changes the strength and volume of his effluent? How does that affect the pretreatment and does the pretreatment survive that?

Dr. HERNANDEZ. Good point because I think what we try to do to keep that sort of thing from happening is to have monitoring systems that would provide some detection of these things. I think there are two kinds of harm that happens to sewage treatment plants, municipal plants as a result of the discharge of industrial waste into them.

One of them is that sort of chronic change in the efficiency of the plant where it may lower it a little bit. Bugs are wonderful things, they can acclimate themselves to new things, some little change in the efficiency. The second thing is it shows sludge discharges that have some kind of adverst impact. I would hope that some of our pretreatment requirements will try to provide for emergency discharge points for those kinds of industrial wastes, the kinds of alarms that can ring when you have volatile material being discharged into a sewer system.

We had an explosion in one in I believe it was Louisville, Ky., where either, I think it was either was discharged into the sewer line.

Senator CHAFEE. In that case, as I recall the Louisville situation, there was a considerable amount of damage done, something in the $20 million area.

Dr. HERNANDEZ. Huge.

Senator CHAFEE. Yet the fine on the discharge was relatively modest compared to the damage done. Was it $50,000 or something like that? Am I correct in my figures?

Dr. HERNANDEZ. I can check them.

Senator CHAFEE. That strikes me as being unfair, somebody who does $20 million in damage and base a $50,000 fine.

Dr. HERNANDEZ. I am not sure that case is totally terminated at this point and we have had some discussions internally within EPA on those issues. But I think the liability goes certainly beyond that in terms of restitution of the words.

Senator CHAFEE. I would think so. It seems to me some major discharger like that has some responsibility to do some monitoring and to alert those involved if preventative measures could have been taken.

Dr. HERNANDEZ. We don't have those right now, and I think it is good idea, Senator Chafee, to have those kinds of alarms. There are many places—they are easy to put in—that when you get to some material that is detectable as a volatile material, an alarm is sounded. Those things are available on the marketplace.

Senator CHAFEE. In your testimony, you talked about a new permit strategy based on local water quality conditions, yet that is contrary to the act, is it not?

Doesn't the act require you to base your permits on the best professional judgment of what the industry guidelines should be?

Dr. HERNANDEZ. I think we are intending to stay right there. Our new strategy is to look at municipal plants that have received Federal funding and that is where we are aiming some of our work right now.

As you know, about, I was going to say early in 1981, there was a GAO report identifying failures in the operation of municipal treatment plants. We sought on the basis of that to find out what the compliance rate really was, and I think our efforts helped bring many of those treatment plants that have received Federal money into better performance by going out there and working with them some during this past year.

With our permit change, I don't think there is any effort to move away from water quality per se.

Senator CHAFEE. In your statement, you say, "We are developing a second round permit strategy to focus resources on existing water quality programs."

You would have to come here for legislation on that, wouldn't you?

Mr. SCHATZOW. I believe what we are talking about, the problem we are confronting, Senator Chafee, is in terms of how are we going to handle permits in the absence of guidelines?

In other words, we have a guideline scheduled. The guidelines are going to be coming out in the next year or two.

To what extent are we going to be writing permits for industrial discharges that will be covered by those guidelines prior to those guidelines becoming final?

I think what Dr. Hernandez suggested is that the ones we want to give the highest priority to, rewriting now, are the ones where we have identified water quality problems. You are certainly correct that when we write a permit, that permit must contain not merely the necessary requirements to protect water quality but must also on under section 402(a) must contain in the absence of guidelines and ad hoc, best engineering judgment technology basis as well.

But as a priority, the permits that we are looking at first in the absence of guidelines and where we are not in some cases going to be waiting for guidelines are those where there is a clean water quality problem.

Senator CHAFEE. I want to talk about enforcement a bit, which you indicated in your statement you were going for the big offenders?

Dr. HERNANDEZ. Yes, sir.

Senator CHAFEE. How many cases last year were referred to the Justice Department in connection with the matters we are discussing here?

Dr. HERNANDEZ. In 1981?

Senator CHAFEE. Yes.

Dr. HERNANDEZ. In fiscal year 1981, we had something like 533 administrative orders, 69 notices of violation, and 46 referrals to the Justice Department.

Senator CHAFEE. Were those all industrial or were some of those municipal?

Dr. HERNANDEZ. There was a variation in that. I have the numbers for 1982 on the percentages of those.

Senator CHAFEE. For 1982?

Dr. HERNANDEZ. In fiscal year 1982.

Senator CHAFEE. I see.

Dr. HERNANDEZ. I have some of those numbers in terms of the variation on that. Fifteen percent——

Senator CHAFEE. How are you going to get fiscal 1982?

Dr. HERNANDEZ. We already have about three months of fiscal 1982.

Senator CHAFEE. OK, go ahead.

Dr. HERNANDEZ. And we have some numbers broken down already on those particular ones since October 1.

Senator CHAFEE. You mean just this year, 4 months?

Dr. HERNANDEZ. Yes, this 4-month period. About 15 percent were industrial and the rest were municipal of those noncompliance. So it is largely municipalities we were looking at.

Senator CHAFEE. You discussed in your statement a high percentage of compliance by industry with the BPT?

Dr. HERNANDEZ. That is correct, sir.

Senator CHAFEE. I just want to make sure that we are checking them just as hard as we are the municipalities?

Dr. HERNANDEZ. I think we continue to look at these. Because of their high compliance rate in the past, we don't find many violations. The kind of balance we found was about 15 percent of those in violation have been industrial in these last 3 or 4 months and the rest have been municipal.

Senator CHAFEE. You mean that percentage is a historic percentage?

Dr. HERNANDEZ. That is the new one. In the past, we haven't really looked at the municipalities. We have these people waiting for construction to take place, permits.

Now, we have a lot of those coming on line and we are going out there to make sure they do operate those plants adequately.

Senator CHAFEE. I was interested in your comments on the sludge. I think we do have a real problem. I think those were good

and obviously all of us have to be spending more time thinking about the sludge.

I would like to talk about the 404 program. That is the program I have always been deeply interested in.

Do you have somebody heading that up?

Dr. HERNANDEZ. Yes, sir.

Senator CHAFEE. Why don't you have he or she come up to the table?

Dr. HERNANDEZ. I will.

Paul Cahill, who is head of the Office of Interagency Affairs will join us. They do, by and large, two things besides work with the various agencies. They review all of our environmental impact statements and the 404 program comes under their cognizance.

Senator CHAFEE. I would like to hear from you, Mr. Cahill, about the 404 program.

What firsthand criticisms have you been receiving about the program?

Mr. CAHILL. We have been involved in an initial look at the 404 program along with other agencies in the Federal Government under the aegis of the Vice President's coordinating group along with the Corps of Engineers, Department of the Interior, and the Department of Commerce.

I have given to Mr. Corcoran some specifics of various cases that have been brought to our attention, problems with the program that develop in many particulars.

Part of it has to do with the time delays, which occur going through the referral process that we have under section 404(q).

We have a number of memorandums which can take a case from its initial district decision by referral through five more layers of decisions working its way up from the district manager to the division manager issuing a second decision, then the chief of engineers here in Washington, reviewing it again and making another decision, then the Under Secretary of the Army for Civil Works having to make a decision again and finally the Army Secretary himself having to be called in.

This is one of the several negotiated memorandums of understanding on what we call elevation. This is one source of complaint because the period to obtain a final decision whether you can have activity on your hand that falls within the waters of the United States is greatly delayed, in some cases——

Senator CHAFEE. Often times it is greatly delayed because people come in with outrageous propositions, isn't it?

Just because they come in and seek a permit doesn't mean the permit should be granted to them rapidly.

Mr. CAHILL. That is true, but this particular procedure is being looked at to see—it does appear 5 years of decision may be too much.

Senator CHAFEE. We have a general permitting process for the run-of-the-mill things.

Mr. CAHILL. That is correct. That is one of the modifications made in 1977.

Senator CHAFEE. I notice, am I correct, in the January 13 Federal Register, the Army has a notice describing its cure of the harassment factor of the 404 program.

Do you agree there is a harassment factor in there?

Mr. CAHILL. Yes, I think given the Q memorandum procedure which I just outlined to you, there is an opportunity for harassment of an applicant because if he doesn't agree to a particular decision that one of the many agencies at the district level seeks to have levied on his project or his home, or whatever else he wants to do, they just appeal it.

Senator CHAFEE. They just what?

Mr. CAHILL. They protest the decision which requires it to start to go up the scale and the person is not allowed to proceed until he works his way through this administrative procedure to exhaust his administrative remedies.

He cannot get into the courts either as to whether this condition is unreasonable or not until he goes through the entire process.

Senator CHAFEE. You are the man in charge of this. I am interested in some of your views on the 404 program.

Why don't you tell us about them? How do you view the wetland as they play a part in the ecosystem?

Mr. Cahill: I think the goals here for water quality and the part that the waters of the United States, tributaries and the lands which are adjacent thereto, they can perform an important part in terms of filtering water and clearing the water, and for that reason, they have to be protected, they have to be examined whatever the project that is proposed if it falls within an area which would affect the water system. So I think that is appropriate and I think that the analysis is appropriate, the environmental assessment should be done.

Senator CHAFEE. This goes beyond just the so-called navigable waters. What we are talking about are wetlands, whether they are in an original field that a farmer buys subsequently or in a forestry project, and I am curious as to how important you feel these wetlands are in the whole system.

Mr. CAHILL. I think the wetlands, many of them are particularly significant. I think you have to make a judgment on them. One of the reasons why these cases are often handled on an individual case-by-case basis is that you have to investigate the particular project which is being proposed and the value of the particular wetlands which is being affected.

It is the Army Corps of Engineers that gets involved in the public interest determination.

Senator CHAFEE. I have been following this for some time and it has been my impression that the system has been working well, that it isn't a harassment, that it performs a valuable service, that those who put their mind to it, whether they are the major lumbering companies, or whoever they are, can live with the 404 and live comfortably and, indeed, support it.

We have a system of general permits and I am unenthusiastic about major revisions in this program. As a matter of fact, I am unenthusiastic about any restrictions in it. So I would hope you would bear in mind who you work for. You work for the Environmental Protection Agency and it seems to me it is not just a code word of EPA, it is a protection agency for the environment and I would hope you would bear those in mind.

Are you a participant in Mr. Gionelli's task force?

Mr. CAHILL. Yes, I am.

Senator CHAFEE. I understand he has sent out an outline of some of the changes he seeks in this program.

Do you know what those are and what do you think of them?

Mr. CAHILL. We haven't taken an agency position on them. They are being described and reviewed internally.

As Dr. Hernandez indicated in his testimony, it would be premature to state our opinion because we really have not done the analysis.

Dr. HERNANDEZ. Senator Chafee, I think a lot of the problems have been interagency problems where people have had different concerns between the agencies, and I think we can, perhaps through this review of our regulations, the review of those of others and clarifications of our memorandums of agreement between the various agencies that many of the things that have caused delays to take place through Government's problems can be eliminated, we can get firmer sets of decisions made.

Part of the problem on any of these local—many of these resort in local land use problems that the best place to solve those is at the local level, but because of the ability of people to escalate them, nobody wants to make a final decision and rest of it, even though there is little change in terms of findings after those initial investigations are made.

Senator CHAFEE. Yes, but, Doctor, you know well that on the local level, you get tremendous local pressures to take care of the farmer who paid the money to buy the land knowing full well there is a swamp in the middle of it and now he prepares to drain it so he can plant more soybeans. Whereas we are all involved in the overall picture for the Nation and presumably we up here can resist local pressures more than they are able to on the local level.

I don't think that every time something takes a while to adjust that means that greater efficiency should be brought to it by reducing times.

Dr. HERNANDEZ. I think there is that trade off.

Senator CHAFEE. Let's not get caught up in this worry efficiency all the time. Taking care of the environment is, in many cases, highly inefficient in the traditional industrial definition of that word.

Dr. HERNANDEZ. I think that is probably right. Trying to assign the market cost to somebody——

Senator CHAFEE. Sure. On the basis of market costs, we wouldn't be doing anything around here presumably. You say it has been very expensive to clean up the waters. You don't mention anything on the plus side.

Dr. HERNANDEZ. I thought I said we made marvelous gains.

Senator CHAFEE. You said, yes, but you don't put anything in the dollar side or what is it like to have a river that doesn't catch fire—

Dr. HERNANDEZ. I would have to put that as one of the environmental pluses.

Senator CHAFEE. You know, Doctor, we go through this all the time around here with clean air or whatever it might be. Everybody wants a cost to it. It tells us how much it costs to clean up this, but no one point out the other side.

Mr. Cahill, I will be following with interest what you are doing. I care about this program and so do others on this committee. And we don't think that it needs overhaul, radical overhaul or modest overhaul.

If you have some suggestions we are open to receive them.

Mr. Gianelli is the head of this task force, is that right, Mr. Cahill?

Mr. CAHILL. Yes.

Senator CHAFEE. And this is the task force that it was appointed pursuant to the Vice President's Regulatory Reform Group?

Mr. CAHILL. Yes, he has, I think, 14 areas that they are looking at. I believe I read in the Post they have added an additional 10 regulatory areas in the last two days.

Senator CHAFEE. I missed that. Could you repeat that?

Mr. CAHILL. I read in the Post that the Vice President's group added an additional 10 regulatory areas that they would be looking at.

Senator CHAFEE. I am not sure how that affects us.

Mr. CAHILL. I am just saying it is one of about 14 to 24 regulatory efforts.

Senator CHAFEE. That the Vice President is dealing with?

Mr. CAHILL. That is correct.

Senator CHAFEE. The 404 is one of only 14 or 24?

Mr. CAHILL. Yes.

Senator CHAFEE. And Mr. Gianelli has what, he has prepared a draft and you commented on his draft?

Mr. CAHILL. He has prepared some proposals, Corps of Engineer proposals that now we have received. They are going to be considered. We are considering them now at our agency.

Senator CHAFEE. I would be interested in your comments to his draft. You haven't sent forward your draft yet, your comments?

Mr. CAHILL. No. We have had discussions on some of the provisions but the provisions keep changing. Actually this is the latest version that I have seen and some parts of it have changed from previous suggestions.

Senator CHAFEE. Let's review the bidding here. It has been my understanding, correct me if I am wrong, that Mr. Gianelli has sent his recommendations regarding 404 to the Vice President's group.

Is that true or false or don't you know?

Mr. CAHILL. That is correct.

Senator CHAFEE. He sent them in?

Mr. CAHILL. Yes, I would say—I think last Friday.

Senator CHAFEE. So your comments have gone.

In other words, you commented. I hope he didn't send it in and then ask for your comments.

Mr. CAHILL. No, we have commented to him on the various aspects as these issues have been discussed, efforts to, for example, give the States more authority, how to get this program back to the States.

That is more in terms of goals than it is specifics. I have my staff at this time reviewing the regulations which we have called the consolidated permit regulations wherein lie the regulations that in-

struct the States what they have to do in order to take over a program.

Also, this particular section, it appears, could benefit from some changes in the section 404 law with regard to State delegation.

Senator CHAFEE. That is what I am interested in. I am interested in your suggestions and I would like to see a copy of them. Could you send them up here?

Mr. CAHILL. OK. We are developing them right now—they are still in the staffing stages. As a matter of fact, I asked my staff today, I had looked at what they prepared and I had sent it back to be more specific referring and quoting the particular section 404 that need the change.

Senator CHAFEE. You have got me confused. Let's start at ground zero.

Mr. Gianelli, who is head of the task force dealing with 404, has sent a week aqo today his recommendations to the President, is that correct?

Mr. CAHILL. No. He sent recommendations to the Vice President.

Senator CHAFEE. I mean to the Vice President.

Mr. CAHILL. They are called the Army recommendations for this 404 program. The EPA portion of this, what EPA might do, the parts of the program which we have some impact on, we are developing our suggestions.

In other words, we have, as the doctor indicated, the management over State delegations. It is up to the EPA to determine when a State proposal is ready for delegation and we are examining our regulations at this time to see how we could make suggestions to assist that and that will be EPA's recommendations on 404.

Senator CHAFEE. I see. Even though he is the head of the task force, he has sent forward to the Vice President's group the recommendations solely of the Army or the Corps of Engineers.

Mr. CAHILL. I think he has titled his recommendations "Army OMB Recommendations for Reform of the Army Corps of Engineers Program." I don't quite remember the title.

Senator CHAFEE. But he didn't even wait for your recommendations to come in.

Mr. CAHILL. No, that is not correct. As you know, the way 404 is set up, the Army makes its decisions and is guided by section 404(b) 1 guidelines which are promulgated by the EPA.

We also have the 404(c) veto power. The administrator could veto a decision by the Army. We also have the State delegation section. So these areas we are putting effort in to trying to come up with recommendations in this area that will complement—we endorse and support the part that the corps is doing but there are a lot of things——

Senator CHAFEE. How do they know you support it?

Mr. CAHILL. Pardon?

Senator CHAFEE. How does the Vice President know you support what the Army has done?

Mr. CAHILL. Because we have participated in the committee as they look at that part of their recommendations.

Senator CHAFEE. I am confused. You correct me if I am wrong.

Mr. Gianelli, head of the task force, has sent on to the Vice President the recommendations on 404 as they pertain to the Corps of Engineers as the Corps of Engineers feels with 404?

EPA has endorsed the Corps of Engineers recommendations as they pertain to 404; is that right?

Mr. CAHILL. No, I would not say that is correct. They have sent on their recommendations. We have parts that affect us, the part of the program that we carry out and we are still developing for those our recommendations.

Senator CHAFEE. Have you endorsed reducing the jurisdictional extent of the permit program?

Mr. CAHILL. No. Let me say we believe that area has to be looked at. That the vagueness and some of the conflicts in the predefinition system could be modified for the benefit of the program.

Senator CHAFEE. You talk about vagueness. Haven't the courts upheld this program?

Mr. CAHILL. I believe there have been many cases on this. You mean as to jurisdiction?

Senator CHAFEE. Yes.

Mr. CAHILL. Yes, but even the courts get involved—for example, the criteria on where the wetlands end often involves hydrologic testimony and economical testimony as well.

In some cases the corps and the EPA had different expert opinion, so much so that the courts have come in and listened to the opinion and actually issued a third version, the court itself being a direct determination rather than the two agencies.

There is some vagueness in how to apply——

Senator CHAFEE. Under the civility opinion, isn't it true that the EPA, not the corps, determines the jurisdictional reach of this program?

Mr. CAHILL. Yes, that is the import of the civility opinion.

Senator CHAFEE. What is your view on that?

Mr. CAHILL. I think the civility opinion is ruling——

Senator CHAFEE. Well, are you for changing it?

Mr. CAHILL. I don't have an opinion on that. I wouldn't speak for my agency.

Dr. HERNANDEZ. I don't think that is one we have taken a stand within the agency. There have been some discussions. I think this is partly a technical issue in trying to say how are we going to resolve this once and for all so that people in America know what is considered a wetland under this definition.

I think that can be done scientifically. I may greatly underestimate the work involved and the amount of money it would cost, but I did bring with me today by chance that I was reading about 3 o'clock this morning an article called, "An Environmental Analysis of Forest Patterns" out of the current issue of American Science.

It discusses for this area here that we live in how you can tell by vegetation and soil type which types of vegetation represent wet lands versus dry lands. And I think we can do that kind of vegetation analysis through aerial photography and help clarify those issues once and for all and say these are the boundaries, does the State agree that is the boundary within this area so we can set them up so people will know in the future and we don't have this problem.

Senator CHAFEE. Except I am not prepared to concede, Doctor, that there has been all this problem.

Sure, there are difficulties but the country as a whole, it seems to me, has adjusted to the 404 program. I have been out, presumably you have been out, been places, has seen, and talked.

I would be interested in receiving what comments you finally make, Mr. Cahill, when you submit them to Mr. Gianelli or to the Vice President on the 404 program.

I would appreciate it if you would send those up here.

Mr. CAHILL. All right.

Senator CHAFEE. And I look for you to be a proponent of the 404 program and not to yield the EPA's final determination on the jurisdictional reach of this program. I am not prepared—I think the Corps of Engineers has done a good job in all fairness on this, and I think contrary to the popular opinion in the corps, they haven't been for paving and filling everything in sight.

My belief is it has been good, but I would rather have EPA the final arbiter here as it is now under the civility opinion, and I don't think that is sonething we should give up and I don't think you should give it up either as a representative of the Environmental Protection Agency or your agency, Dr. Hernandez.

Dr. HERNANDEZ. Sir, my point is to hope we could use science to bring sone clarification so people did in fact know. I think that might be a positive thing. It will probably take some years to do it.

Senator CHAFEE. I don't think you are going to reach a situation where every problem in connection with 404 can be decided in a reach.

Some of the people who come in with demands under this program are outrageous and we ought to recognize that and we are not going to be able to meet their demands, even though they appeal or whoever appeals up through the process.

They are not going to get what they want. Some of these are very difficult and we are dealing with an important part of the whole ecological system.

I think we ought to recognize that. We up here on this committee believe strongly about this in case that hasn't become apparent.

Dr. HERNANDEZ. I think I sensed something this morning.

Senator CHAFEE. Thank you for coming.

Dr. HERNANDEZ. Thank you, very much.

[Whereupon, at 12:38 a.m., the subcommittee recessed, to reconvene at the call of the Chair.]

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